## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau





(43) International Publication Date 19 August 2004 (8/19/2004)

**PCT** 

(10) International Publication Number WO 2004/070253 A1

(51) International Patent Classification<sup>7</sup>:

F16L 37/00

- (21) International Application Number: PCT/DE2004/000004
- (22) International Filing Date:

7 January 2004 (1/7/2004)

(25) Filing Language:

German

(26) Publication Language:

German

(30) Priority Data:

203 01 844.3 6 February 2003 (2/6/2003)

DE

- (71) Applicant (for all designated States except US):
  RATIONAL AG [DE/DE/; Iglinger Strasse 62, 86899
  Landsberg/Lech (Germany).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RABE, Hermann [DE/DE]; Fliederweg 3, 86899 Landsberg (Germany).

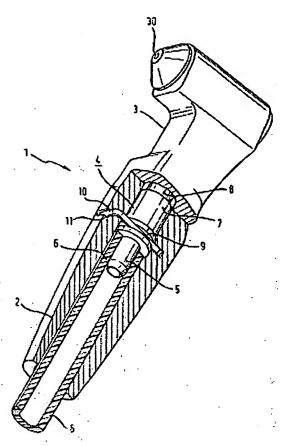
- (74) Attorneys: WEBER-BRULS, Dorothée et al; Boehmert & Boehmert, Holleralle 32, 28209 Bremen (Germany)
- (81) Designated States (if not otherwise stated, for any available type of national protected right): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (if not otherwise stated, for any available type of regional protected right): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

--- With international search report

For two-letter codes and other abbreviations refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HAND-HELD SPRAYER FOR HOSE ROLLERS



(57) Abstract: The invention relates to a hand-held sprayer comprising an at least partly hollow shaft section (2), a liquid-dispensing section (3), and a hollow insertion element (4) for connecting a hose extension (6) to the hand-held sprayer (1). Said connecting insertion element (4) is disposed inside the shaft section (2) and can be fastened via a fixing element (10) which can be inserted into the shaft section (2) from outside through at least one opening (11). The connecting insertion element (4) is provided with a groove (9) which radially extends around the outer circumference thereof, the fixing element (10) engaging thereinto when the connecting insertion element (4) is fastened in the shaft section (2).